

## PATENT ABSTRACTS OF JAPAN

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## (54) METHOD AND CIRCUIT FOR DETECTING FADING

## (57)Abstract:

PURPOSE: To improve the fading detection sensitivity in a 4 PSK receiver.

CONSTITUTION: The circuit is provided with a phase identification circuit 24 identifying a phase of a base band output of a 4PSK demodulator 10. A timing resulting from delaying an eye aperture timing obtained from a clock extract circuit 18 at a delay circuit 42 is used for a sampling timing for the phase identification circuit 24 by a sample-and-hold circuit 40. When the sampling timing (observed timing) by the sample-and-hold circuit 40 is shifted by the delay circuit 42, fading appears at an output of the phase identification circuit 24 as a rotation or torsion of a constellation. The phase identification circuit 24 receives no effect of level fluctuation of an input to the 4PSK demodulator 10 or deterioration in the modulation characteristic or the like.

